

Northwest Basins Planning Area

- Welcome and Introductions
- Presentation: Background Information
- Discussion: Changes, Additions, and Updates to Background Information
- Presentation: Summary of Previously Identified Mitigation Strategies
- Discussion: Mitigation Strategies and Additional Proposals for Strategies
- *15-minute break*
- Presentation: Existing Water Demand Data
- Breakout: Demand Sector Discussion Groups
- Discussion Regarding Information Sharing and Next Steps
- General Comment
- Closing Remarks

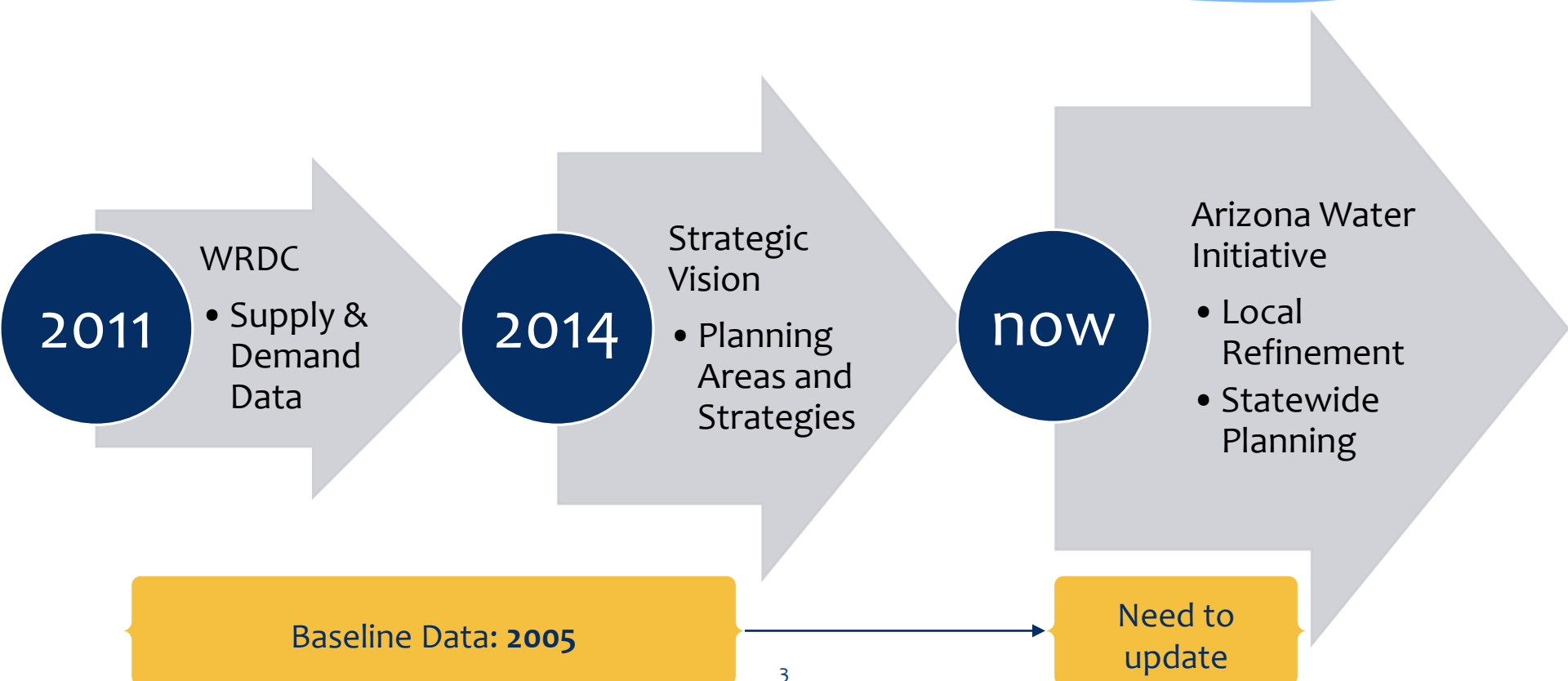
Northwest Basins Planning Area: Background Information



Arizona Water Initiative
Northwest Basins Planning Area
Background and Mitigation Strategies
September 8, 2016

John Riggins

Arizona Water Data: Recent Timeline



Arizona Water Initiative Planning Area Process

Arizona's Next Century:

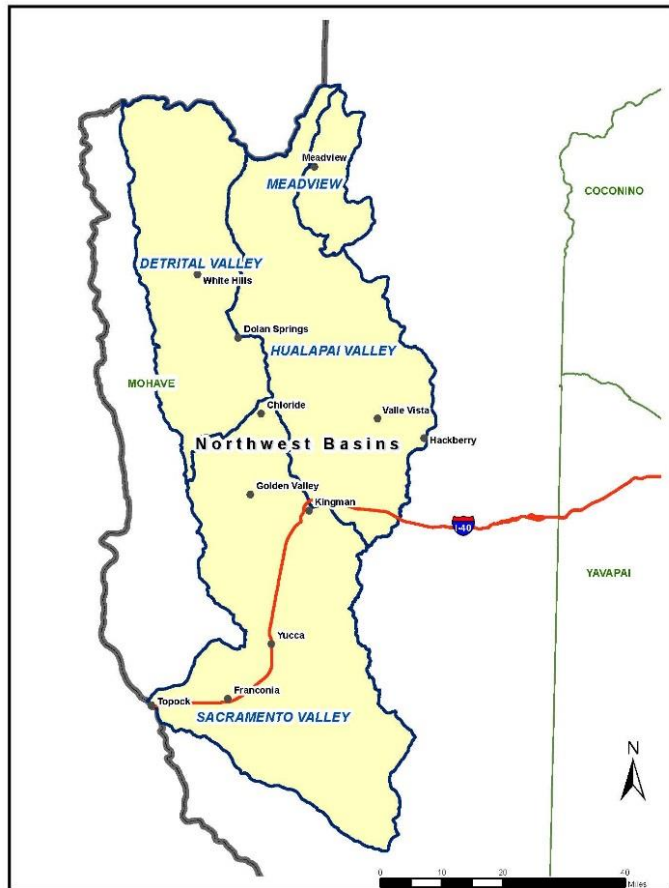
A Strategic Vision for Water Supply Sustainability



January 2014

- The Strategic Vision created the framework for the development of potential strategies to address the projected water imbalances.
- No single strategy can address the projected water supply imbalance
- We will work closely with you, the stakeholders to develop strategies that are likely to be successful in addressing demand and supply imbalances.

Location and Composition



- City/Town
- Interstate
- Groundwater Basins
- NW Basins Planning Area
- State Border
- County

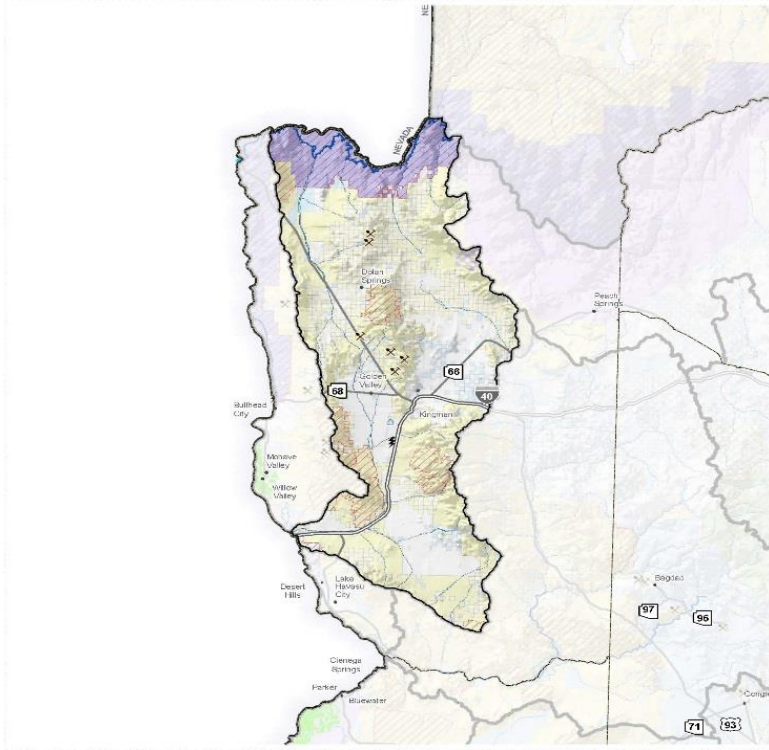
Northwest Basins
Groundwater Basins



- **Basin and Range Physiographic Province**
- **County:** Mohave
- **Communities:** Kingman, Dolan Springs, Golden Valley, Hackberry, Meadview, Valle Vista, White Hills, and Yucca
- **Basins:** Detrital, Hualapai, Meadview and Sacramento Basins

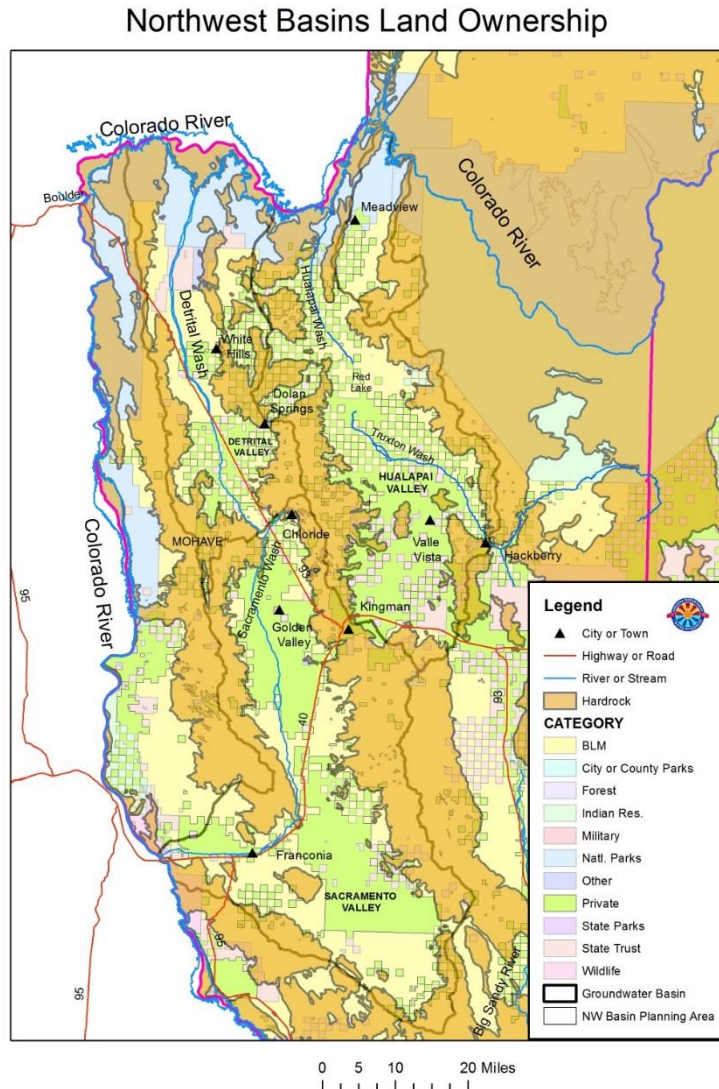
Land Ownership and Use

NOTE: Because GIS data for this project were acquired from multiple sources employing different base data and varying accuracy standards, some inaccuracies were encountered. The user is responsible for understanding the accuracy limitations of GIS data layers and is responsible for the results of any application of the data for other than their intended purpose.



- **Federal Land ownership majority of land**
 - Lake Mead National Rec. Area, Portions of the Hualapai Tribal Land, Mt. Tipton and Mt. Wilson Wilderness Areas
- **Largest landowner is BLM**
- **Hualapai Basin 43% private land**
 - Fragmented ownership with State, Federal and private in “checkerboard” fashion

Northwest Basins Land Ownership



- The Strategic Vision states this “checkerboard” land ownership often complicates the development and implementation of comprehensive land management strategies.

Water Supplies

- **Groundwater**
 - Leading source of water supply for Planning Area
- **Surface Water**
 - Colorado River is the only perennial stream in the Planning Area (Northern Boundary) and a small portion near Topock
- **Reclaimed Water**
 - City of Kingman operates the Hilltop and Downtown Wastewater Treatment plants

Ecological Resources

- Lake Mead National Recreation Area
- Havasu National Wildlife Refuge
- Designated Wilderness Areas:
 - Mt. Tipton
 - Mt. Wilson
 - Warm Springs
 - Wabayuma Peak
 - Aubrey Peak

Other Background

- **Mohave County Water Authority (MCWA)**
 - Acquired Kingman's entitlement of Colorado River Water
 - Payment to Kingman to develop groundwater resources

Discussion Regarding Changes, Additions, and Updates to Background Information

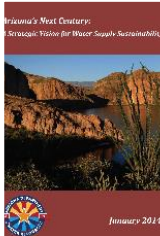
Northwest Basins Planning Area: Summary of Identified Mitigation Strategies



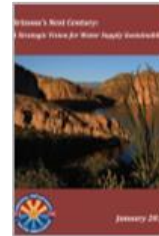
Arizona Water Initiative
Northwest Basins Planning Area
Identified Mitigation Strategies
September 8, 2016

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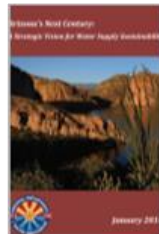
Strategies from Strategic Vision



Expanded Monitoring



Reclaimed Water Reuse



**Continuation of
Groundwater Supply
Studies and Analysis**

Number of Annual GWSI Water Level Measurements In Northwest Basin Planning Area

Year	Detrital	Hualapai	Meadview	Sacramento	Year	Detrital	Hualapai	Meadview	Sacramento
1924				1	1979		1		64
1932		3		1	1980		97	9	7
1942				1	1981		4		3
1943		7		69	1982		5	1	6
1944		4		53	1983		3	1	7
1945				9	1984	29	4	1	8
1946				7	1985	3	62	8	8
1947				3	1986	3	10	5	9
1948				7	1987	33	6	1	8
1949				2	1988	4	8	1	11
1950		1		2	1989	4	9	1	11
1951		1		11	1990	13	8	3	181
1952		8		42	1991	4	80	14	21
1953		3		15	1992	15	10	4	16
1954		1		2	1993	5	10	4	16
1955		4		12	1994	5	10	4	12
1956		4		9	1995	31	71	17	66
1957	1	2		5	1996	4	22	7	12
1958		4		4	1997	4	10	4	16
1959				4	1998	4	10	4	14
1960		1		3	1999	9	13	10	26
1961		1		7	2000	4	10	4	17
1962		3		5	2001	4	10	4	16
1963		5		6	2002	4	10	4	15
1964		22		33	2003	5	26	4	13
1965	1	33		41	2004	4	13	6	20
1966	1	5		11	2005	7	16	5	15
1967	2	4		11	2006	118	128	23	225
1968		4		9	2007	17	30	5	21
1969		7		11	2008	15	26	6	16
1970		3		6	2009	13	23	3	23
1971		5		9	2010	11	15	3	21
1972		4		7	2011	16	25	4	23
1973		3	6	7	2012	14	25	4	26
1974		2	2	6	2013	13	28	4	26
1975	1	1	1	6	2014	16	32	5	29
1976		2	1	6	2015	13	27	3	23
1977				9					
1978		2		15	Total	450	1046	196	1515

Strategies identified by Stakeholders at the 1st Northwest Basins Meeting (Public Comment)

Public Comments from the June 29th Meeting

- A third option for groundwater regulation (in regards to an option other than AMA & INA)
- Comments called for either an AMA or INA for the Hualapai Basin
- Comments called for regulation of agriculture water use
- *These identified points do not imply ADWR support or endorsement of any particular strategy; This is just a list for the purposes of having everything on the table for discussion.*

Strategies identified by Stakeholders at the 1st Northwest Basins Meeting (Public Comment)

Public Comments from the June 29th Meeting

- Statewide monitoring and measuring
- Studies to determine the long term ecological impact of groundwater depletion
- Revised water budgets for the Hualapai and Sacramento Basins to reflect agriculture water use
- *These identified points do not imply ADWR support or endorsement of any particular strategy; This is just a list for the purposes of having everything on the table for discussion*

Discussion Regarding Mitigation Strategies and Additional Proposals for Strategies



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ADWR portal available for stakeholders to provide information: adwrwellinfo@azwater.gov